

REMARKS

After entry of the foregoing amendment, claims 1-5 and 17-22 are pending in the application.

A continuation of the present application was filed on April 12, 2000 as S/N 09/547,664 (Ex'r Viet Vu, A.U. 2154). In the '664 application, Examiner Vu issued a restriction requirement, pursuant to which applicants canceled claims 1-6, and elected to prosecute claims 7-16.

In the present application, the claims 7-16 being examined by Examiner Vu are canceled (together with claim 6), and applicants are prosecuting just claims 1-5 of the originally-filed claims.

Claims 1-5 stand rejected as allegedly anticipated by Shinoda (6,611,830). Applicants respectfully traverse the rejection.

Shinoda is somewhat difficult to understand due to the manner of its translation from Japanese into English, but is presently understood to disclose a method for searching for web pages using digital watermark information.

In particular, Shinoda is understood to include a watermarked logo on a web page. If a user wants to find other, related, web pages, the watermark is decoded by the user's browser ("Mark Information Read Processing" in block 40143 of Fig. 4). The decoded information is then relayed to a Mark Management Server (103, Fig. 2). This server looks up the received watermark information in its Mark Management Database 2021 (see also Fig. 5) and identifies other web pages with related info (e.g., bearing the same watermarked logo). It sends the URLs of these other web pages to the client.

It will be recognized that Shinoda's functionality appears limited to identifying web pages bearing the same watermarked logo as an initial web page already loaded by a user (col. 5, lines 49-53).

Applicants' claims go beyond the teachings of Shinoda's disclosure.

For example, to try and fit Shinoda to applicants' claim 1, it appears the "first object" in applicants' claims is being construed to map to Shinoda's logo on the initial web page already loaded by a user. The "object identifier" is similarly being mapped to the Mark ID that is embedded in Shinoda's logo. And it appears the claimed "first device" is Shinoda's client terminal 101, and the claimed "second device" is being

construed to be Shinoda's Mark Management Server 103. (The Examiner is requested to so-state if any of the foregoing is in error.)

In this case, then Shinoda is not understood to teach the claim element "in response, at said second device, identifying address information corresponding to said first object identifier and sending same to the first device."

Shinoda has no need to "identify address information corresponding to said first object identifier." The client terminal already has the initial web page loaded. The client does not need – and Shinoda does not provide – the URL of the initial web page that the client started with.

Similarly, Shinoda does not teach "initiating a link from the first device in accordance with said address information."

Again, the client terminal *already has* the initial web page loaded. The client terminal does not need to "initiate a link" to a web page that it already has loaded.

If the Office is intending to construe the "address information corresponding to said first object identifier" to mean URLs of *other* web pages bearing the same logo as the web page initially loaded by the client terminal, then the rest of the claim does not map to Shinoda. Shinoda's purpose has been fulfilled. He does not teach anything after the act of providing those other web page URLs for the client to link to. Yet the claim goes on for several more clauses – clauses that have no counterpart to Shinoda under such an interpretation.

Moreover, it should be recognized that one application of the claimed arrangement is to speed linking from physical objects (e.g., magazine pages) to corresponding electronic resources, by anticipating possible actions the user may next undertake, and provide needed information before it is requested. As the specification describes:

To speed system response, the product handler 16 may anticipatorily send URLs to the application corresponding to watermark payloads the handler foresees may be coming. These URLs can be cached in memory associated with the application 28c, and quickly recalled if needed by the application.

Consider, for example, a magazine containing watermarked advertising. If the user presents a first ad to the device 12, the watermark is

decoded and forwarded to the product handler 16, which responds with a URL corresponding to that ad. The application 28c then passes that received URL to a web browser 28b on the device 12, which initiates a link to that internet address. But the handler now knows the magazine the user is reading. By reference to the watermark first received, the handler may discern, for example, that the user is reading the San Francisco edition of the March 14, 2000, Time magazine, and just looked at page 85. Based on this information the handler can query the database 17 for URLs associated with other advertising in that issue. (The database index is structured to permit fast queries identifying all ads in a given magazine issue or other collective data source.) These URLs are passed back to the application 28c and cached. If the user next presents an advertisement from page 110 to device 12, the application 28c finds it already has the corresponding URL locally cached. The application then passes the corresponding URL to the web browser. The web browser initiates the link immediately, obviating a data round trip between the application and the remote system.

The caching can be optimized in a variety of ways. One is to first send URLs corresponding to pages that are next-expected to be encountered. For example, if the user just presented page 85 to the sensor 22, after sending the URL for that page, the handler 16 would next send the URLs associated with pages 86, 87, etc. On sending the URL for the last page of the magazine (typically the rear cover), the handler could start from the beginning (typically the front cover) and send further URLs up to that for page 84. Another optimization is to first cache URLs for the most conspicuous ads, e.g., first send URLs for any 2-page spread ads, then for each full page ad, then for each successively smaller fractional-page ad. Still another approach is for handler 16 to dispatch URLs to device 12 for caching in accordance with a contractually-agreed priority. One advertiser, for example, may pay a premium ad rate in exchanged for being cached before other advertisers who don't pay the premium. Other caching priorities, and combinations of such priorities, can naturally be employed.¹

¹ Specification, page 19, line 27 through page 20, line 29.

It will be recognized that Shinoda does not provide any such features to speed linking for additional objects.

Likewise, Shinoda is not understood to teach the arrangement of claim 2. While Shinoda shows -- in Fig. 5 -- a database record with plural data fields, Shinoda is not understood to teach

generating a file corresponding to said database record and including data from at least certain of said fields;
electronically distributing a copy of the file to each of plural recipients;
one of said recipients adding data to a copy of the file, or changing data in a copy of the file, and sending the file to the database;
updating the database record in accordance with said changed file;
generating a new file corresponding to the updated database record and including data from at least certain of said fields; and
electronically distributing a copy of the new file to each of said plural recipients.

The Action cites col. 4, line 64 to col. 5, line 47 for these elements. But that passage of Shinoda is understood to disclose different subject matter. In particular, this passage is understood to detail the cooperation between a WWW Web Server 102 and a Mark Management Server 103 by which the server 102 requests -- and server 103 provides -- a watermarked logo or the like for inclusion in a web page served from server 102.

This passage does not teach generating a file corresponding to a database record (having plural fields), and electronically distributing a copy of such a file to plural recipients -- one of whom adds to or changes data in the file and sends back to the database, nor the updating of a database in accordance with the file, nor the generation of a new file corresponding to the updated database record, nor the electronic distribution of a copy of the new file to each of plural recipients.

Similarly, Shinoda is not understood to teach the subject matter of claim 3. While the Action cites col. 4, lines 17 to 63 of Shinoda, this passage is understood to detail how a web browser can query the Mark Management Server 103 to obtain the URLs of other web pages that include the same logo as a web page already loaded by the client terminal

101. This is not understood to teach the limitations of claim 3, e.g., the registration means, the originating device means, the routing means, and the product handler means -- with the interrelationships detailed in the claim.

Likewise, the limitations of claims 4 and 5 are not believed to be taught by Shinoda.

New claims 17- 22 are added to more fully protect applicants' inventive work, and concern subject matter related to that of claim 1.

Favorable reconsideration and passage to issuance are solicited.

Date: January 7, 2004

23735*

23735

Phone: 503-885-9699
FAX 503-885-9880

Respectfully submitted,

DIGIMARC CORPORATION

By


William Y. Conwell
Registration No. 31,943